

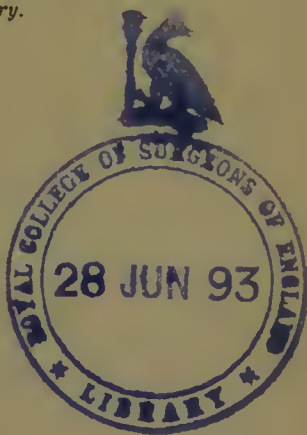
COMPOUND COMMINUTED FRACTURE
OF THE SKULL

WITH EXTENSIVE LOSS OF OSSEOUS COVERING
TO THE BRAIN ; RECOVERY.

BY

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Surgeon to the Cumberland Infirmary.



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ON the night of Dec. 20th, 1892, a carter aged twenty-four was brought to the Cumberland Infirmary suffering from a severe injury to the head. It appeared that he was returning on an empty lorry with two other men and that, when sitting in the front part of the waggon, he probably fell off whilst asleep and was run over, for his companions suddenly missing him retraced their steps for about a mile and found him on the road unconscious and bleeding from a wound on the right side of the head. He was placed by them on the waggon and brought into the hospital, a distance of twelve miles. On admission to the infirmary Mr. Mathews, the house surgeon, found the patient to be unconscious and breathing stertorously; the scalp was reflected from the greater part of the right side of the head and was hanging over the right ear and face; the bone was seen to be broken up into large plates, which were partly loose and tilted out of position and evidence of extensive hæmorrhage was present. Both eyes were ecchymosed and the lids swollen and there was bleeding from both nostrils. The injuries were, however,

limited to the head. It was found needful to administer a little chloroform to restrain unconscious movements, and it was then seen that the soft parts were laid open from near the vertex towards the angle of the right orbit, as shown

FIG. 1.



by the cicatricial line which crosses the shaded area in Fig. 1. The condition seemed so hopeless and the fracture so extensive that I almost hesitated to touch the patient; but on removing one bit of bone after another and finding that the

dura mater was uninjured, there was more encouragement given to make the best of the case. The bone removed corresponded to the area shown on the engraving by the dark shade, and it will be seen that portions of the temporal, parietal and frontal bones were included in the

FIG. 2.



injury. From the site of fracture the fissures extended in all directions towards the orbital plate on the right side, the base of the skull in the temporal region and backwards towards the occipital bone. All blood which had accumulated between the vault and the dura mater was

syringed out, and after inserting a large horsehair drain the scalp was stitched up and the patient removed to bed. A blue appearance of the dura mater within the area of fracture was suggestive of subdural hæmorrhage, but no symptoms of cortical lesion appeared. For three days the man was in a drowsy condition with a slow pulse (60) and passing urine involuntarily. In ten days, however, the wound healed, power was recovered over the bladder, he ate and slept and expressed himself as feeling quite well. The brain was seen to pulsate over a large area and, with the exception of a drooping of the right eyebrow and a smoothing of the wrinkles on the right forehead no trace of paralysis appeared. The patient was discharged on March 2nd after being provided with a protection of leather and metal for the right side of the head. It is to be observed that the hearing when tested was nearly as good on the right side as on the left. The engravings, which are from photographs taken in the ward, show the area of brain uncovered by bone, a pencil mark on the skin having previously defined the edge of the bone. The four vertical lines seen in Fig. 1 indicate the disappearance of the uncovered surface of brain behind the zygoma. The engraver has accurately represented the paralysis of the right occipito-frontalis muscle in Fig. 2. The broken fragments when fixed together measured eleven centimetres long by six centimetres broad but the actual aperture in the man's head was probably somewhat larger, as all sharp points and edges were smoothed away with pliers. I have had many head injuries under observation, but the present one strikes me as exceptionally remarkable on account of the great destruction of bone without injury to the dura mater, and herein, no doubt, lay the reason why the man made so good a recovery. Doubtless larger spaces have been bared by the trephine for operative procedure on the brain without harm

resulting, but these circumstances are wholly different from the rude violence of a cartwheel. As regards temperature, the highest point reached was 103°F . two days after the accident, and then there was an almost immediate fall to about normal.

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